

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
 ETATS-UNIS D'AMERIQUE
 in its capacity as elected Office

Date of mailing (day/month/year) 20 March 2001 (20.03.01)	
International application No. PCT/US00/11766	Applicant's or agent's file reference 161000/54039
International filing date (day/month/year) 29 April 2000 (29.04.00)	Priority date (day/month/year) 30 April 1999 (30.04.99)
Applicant VERHALEN, Ami et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
 30 November 2000 (30.11.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Pascal Piriou Telephone No.: (41-22) 338.83.38
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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

14
REC'D 29 OCT 2001

WIPO PCT

Applicant's or agent's file reference 161000/54039	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/11766	International filing date (day/month/year) 29 APRIL 2000	Priority date (day/month/year) 30 APRIL 1999
International Patent Classification (IPC) or national classification and IPC IPC(7): B26D 7/00; B23D 19/00 and US Cl.: 83/42, 77, 174.1, 703, 932		
Applicant BERKEL INCORPORATED		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 9 sheets.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 30 NOVEMBER 2000	Date of completion of this report 28 AUGUST 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer KENNETH PETERSON
Facsimile No. (703) 305-3230	Telephone No. (703) 308-1148

Sheila V. Vanecko
Paralegal Specialist
Technology Center 3700

I. Basis of the report**1. With regard to the elements of the international application:***

- ☒ the international application as originally filed
☒ the description:
pages 1-30 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the claims:
pages 31-39 , as originally filed
pages NONE , as amended (together with any statement) under Article 19
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the drawings:
pages 1-51 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the sequence listing part of the
description. NONE , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international

- ☐ contained in the international application in printed form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages: NONE
☒ the claims, No.: NONE
☒ the drawings, sheets-fig: NONE

5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

**Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
- ☒ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☒ not complied with for the following reasons:

Please See Supplemental Sheet.

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☒ all parts.
- ☐ the parts relating to claims Nos. .

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. statement**

Novelty (N)	Claims	<u>5, 7-13, 18</u>	YES
	Claims	<u>1-4, 6, 14-17</u>	NO
Inventive Step (IS)	Claims	<u>NONE</u>	YES
	Claims	<u>1-18</u>	NO
Industrial Applicability (IA)	Claims	<u>1-18</u>	YES
	Claims	<u>NONE</u>	NO

2. citations and explanations (Rule 70.7)

Claims 1-2, as best understood, lack novelty and an inventive step under PCT Article 33(2)-(3) as being anticipated by Sly et al. (US 3,938,602).

Sly discloses all the positively recited elements of the invention including a rotatable blade and a motor (col. 2), a base defining a portion of a periphery of a food slice receiving area with a sliced food receptacle (18) and a scale (15).

Claims 3-4, as best understood, lack novelty and an inventive step under PCT Article 33(2)-(3) as being anticipated by Freudenberg (US 1,945,269).

Freudenberg discloses all the positively recited elements of the invention including a rotatable blade (15), a motor (20), a gauge plate adjustment (43), a support surface having visible indicia (81) and an adjustable gauge plate (25).

Claim 6, as best understood, lacks novelty and an inventive step under PCT Article 33(2)-(3) as being anticipated by Shie, III (US 3,986,304).

Shie discloses all the positively recited elements of the invention including a rotatable blade having a blade edge (15), a motor (drive means), a blade sharpening assembly (25) having a sharpening stone (30), a spring (37), a guide (53) and an actuator (70).

Claims 14-15, as best understood, lack novelty and an inventive step under PCT Article 33(2)-(3) as being anticipated by Huang et al. (US 5,666,866).

Huang discloses all the positively recited elements of the invention including a rotatable blade (20), a motor, a slidably mounted table (26), a handle having a first grasping portion, and a second grasping portion and a third grasping portion (Fig. 1).

Claims 16-17, as best understood, lack novelty and an inventive step under PCT Article 33(2)-(3) as being anticipated by Johnson et al. (US 4,813,316).

(Continued on Supplemental Sheet.)

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VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

The drawings are objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or content thereof: reference character "3502" has been used to designate both visible indicia and support surface.

The description is objected to as containing the following defect(s) under PCT Rule 66.2(a)(iii) in the form or contents thereof: page 16, line 24, "43" should be ~~—34—~~.

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VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claims 1-4, 6-8, 11-12, 14-15 and 17 are objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because the claims 1, 3-4, 6, 11, 14-15 and 17 are indefinite for the following reason(s): In claim 1, it is not clear what structure infers "no portion of the base extending into said food slice receiving area so that said bulk food product output can form a stack of substantial height on said food slice receiving area". If the base defines a portion of a periphery of the food slice receiving area, how is it possible to have no portion of the base extending into the food slice receiving area?

In claims 3-4, it is not clear what structure "adapted to connect" infers.

In claim 4, "the gauge plate" lacks positive antecedent basis.

In claim 6, it is not clear what structure "adapted to engage" infers. It is not clear what is meant by "self adjusting". Does that mean the blade sharpening assembly adjust by itself? It appears that the adjustment requires adjusting of depression of the actuator along the guide.

In claim 11, it is not clear what structure infers "at least one lock (217) for securing ...". A ridge (217) prevents movement of body (208) with respect to base (204), it does not appear to prevent movement of the sled.

In claim 14, it is clear what is meant by "extending substantially horizontally".

In claim 15, it is not clear what structure "a first and second length" infers.

In claim 17, it is not clear what step the recitation "automatically driving the table (300) from the table end position back to the table start position..." encompass. Is "the table end position" recorded in the memory device also? It appears that it requires a signal from an end position switch.

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

IV. LACK OF UNITY OF INVENTION:

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2, and 13.3 is not complied with for the following reasons:

As applicant was previously notified this International Preliminary Examining Authority has found plural inventions claimed in the International Application covered by the claims indicated below:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1.

Group I, claim(s) 1-4 are, drawn to a bulk food product slicing machine containing a specific slice thickness indicia.

Group II, claim(s) 5-8 are, drawn to a bulk food product slicing machine containing a specific blade sharpening assembly.

Group III, claim(s) 9-12 are, drawn to a slicing machine containing a specific table and sled.

Group IV, claim(s) 13 is, drawn to a bulk food product slicing machine containing a specific carriage and support arm.

Group V, claim(s) 14-15 are, drawn to a bulk food product slicing machine containing a specific handle.

Group VI, claim(s) 16 is, drawn to an operator adjusted optimum stroke system containing a specific selector, zero position switch, encoder and microprocessor.

Group VII, claim(s) 17 is, drawn to a method of automatic operation of a bulk food product slicing machine.

Group VIII, claim(s) 18 is, drawn to a bulk food product slicing machine containing a specific adjustable gauge plate and interlock system.

and it considers that the International Application does not comply with the requirements of unity of invention (Rules 13.1, 13.2 and 13.3) for the reasons indicated below:

The inventions listed as Groups I-VIII do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The apparatus of Group I does not require the special technical features of the apparatus of Group II such as the specific blade sharpening assembly, conversely, the apparatus of Group II does not require the special technical features of Group I such as the specific slice thickness indicia. The apparatus of Group I does not require the special technical features of the apparatus of Group III such as the specific table and sled, conversely, the apparatus of Group III does not require the special technical features of Group I such as the specific slice thickness indicia. The apparatus of Group I does not require the special technical features of the apparatus of Group IV such as the specific carriage and support arm, conversely, the apparatus of Group IV does not require the special technical features of Group I such as the specific slice thickness indicia. The apparatus of Group I does not require the special technical features of the apparatus of Group V such as the specific handle, conversely, the apparatus of Group V does not require the special technical features of Group I such as the specific slice thickness indicia. The apparatus of Group I does not require the special technical features of the apparatus of Group VI such as the specific selector, zero position switch, encoder, microprocessor, conversely, the apparatus of Group VI does not require the special technical features of Group I such as the specific slice thickness indicia. The method of Group VII can be practiced by another different apparatus such as the apparatus not having the specific slice thickness indicia set forth in Group I. The apparatus of Group I does not require the special technical features of the apparatus of Group VIII such as the specific adjustable gauge plate and interlock system, conversely, the apparatus of Group VIII does not require the special technical features of Group I such as the specific slice thickness indicia. The apparatus of Group II does not require the special technical features of the apparatus of Group III such as the specific table and sled, conversely, the apparatus of Group III does not require the special technical features of Group II such as the specific blade sharpening assembly. The apparatus of Group II does not require the special technical features of the apparatus of Group IV such as the specific carriage and support arm, conversely, the apparatus of Group IV does not require the special technical features of Group II such as the specific blade sharpening assembly. The apparatus of Group II does not require the special technical features of the apparatus of Group V such as the specific handle, conversely, the apparatus of Group V does not require the special technical features of Group II such as the specific blade sharpening assembly. The apparatus of Group II does not require the special technical features of the apparatus of Group VI such as the specific selector, zero position switch, encoder, microprocessor, conversely, the apparatus of Group VI does not require the special technical features of Group II such as the specific blade sharpening assembly. The method of Group VII can be practiced by another different apparatus such as the apparatus not having the specific blade sharpening assembly set forth in Group II. The apparatus of Group II does not require the special technical features of the apparatus of Group VIII such as the specific adjustable gauge plate and interlock system, conversely, the apparatus of Group VIII does not require the special technical features of Group II such as the specific blade sharpening assembly. The apparatus of Group III does not require the special technical features of the apparatus of Group IV such as the specific carriage and support arm, conversely, the apparatus of Group IV does not require the special technical features of Group III such as the specific table and sled. The apparatus of

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

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Group III does not require the special technical features of the apparatus of Group V such as the specific handle, conversely, the apparatus of Group V does not require the special technical features of Group III such as the specific table and sled. The apparatus of Group III does not require the special technical features of the apparatus of Group VI such as the specific selector, zero position switch, encoder, microprocessor, conversely, the apparatus of Group VI does not require the special technical features of Group III such as the specific table and sled. The method of Group VII can be practiced by another different apparatus such as the apparatus not having the specific adjustable gauge plate and interlock system, conversely, the apparatus of Group VIII does not require the special technical features of Group III such as the specific table and sled. The apparatus of Group IV does not require the special technical features of the apparatus of Group V such as the specific handle, conversely, the apparatus of Group V does not require the special technical features of Group IV such as the specific carriage and support arm. The apparatus of Group IV does not require the special technical features of the apparatus of Group VI such as the specific selector, zero position switch, encoder, microprocessor, conversely, the apparatus of Group VI does not require the special technical features of Group IV such as the specific carriage and support arm. The method of Group VII can be practiced by another different apparatus such as the apparatus not having the specific carriage and support arm set forth in Group IV. The apparatus of Group IV does not require the special technical features of the apparatus of Group VIII such as the specific adjustable gauge plate and interlock system, conversely, the apparatus of Group VIII does not require the special technical features of Group IV such as the specific carriage and support arm. The apparatus of Group V does not require the special technical features of the apparatus of Group VI such as the specific selector, zero position switch, encoder, microprocessor, conversely, the apparatus of Group VI does not require the special technical features of Group V such as the specific handle. The method of Group VII can be practiced by another different apparatus such as the apparatus not having the specific handle set forth in Group V. The apparatus of Group V does not require the special technical features of the apparatus of Group VIII such as the specific adjustable gauge plate and interlock system, conversely, the apparatus of Group VIII does not require the special technical features of Group V such as the specific handle. The apparatus of Group VI does not require the special technical features of the apparatus of Group VIII such as the specific adjustable gauge plate and interlock system, conversely, the apparatus of Group VIII does not require the special technical features of Group VI such as the specific selector, zero position switch, encoder, microprocessor. The method of Group VII can be practiced by another different apparatus such as the apparatus not having the specific selector, zero position switch, encoder, microprocessor set forth in Group VI and adjustable gauge plate and interlock system set forth in Group VIII.

V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):

Johnson discloses all the positively recited elements of the invention including a selector (104), a zero position switch (col. 12, lines 15-26), an encoder (col. 12 line 67-col. 13, line 16), and a microprocessor having memory (142).

Claims 5, 7-13 and 18 meet the criteria set out in PCT Article 33(2), because no single reference discloses the claimed invention.

Claims 5 and 8, as best understood, lack an inventive step under PCT Article 33(3) as being obvious over Shie, III (US 3,986,304).

Shie discloses the invention substantially as claimed including a rotatable blade having a sharp edge (15), a motor (drive means), a blade sharpening assembly (25) having at least one sharpening stone (30) and a shield (75). Shie fails to teach that the shield is retractable. However, it would have been an obvious matter of design choice to modify the shield of Shie separate and retractable from a guard cover (70) of Shie, since constructing a formerly integral structure in various elements involves only routine skill in the art and the retractable shield is old and well known in the art.

Claim 7, as best understood, lacks an inventive step under PCT Article 33(3) as being obvious over Shie, III (US 3,986,304) in view of Young (US 6,164,161).

Shie discloses the invention substantially as claimed except for a position sensor. Young teaches a sharpener provided with a safety switch (col. 10). Given the teachings of Young, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a safety switch on the device of Shie. Doing so would provide a safety mechanism for operating the sharpening assembly with the rotating blade.

Claims 9-12, as best understood, lack an inventive step under PCT Article 33(3) as being obvious over Koch et al. (US

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 12

5,224,407) in view of Strachan et al. (US 1,972,250).

Koch discloses the invention substantially as claimed including a rotatable blade (8), a motor, a table (5) and at least one lock (page 1, lines 85-89). Koch fails to teach a sled having a base portion and a securing surface, and a second securing surface. Strachan teaches clamp elements (13, 14). Given the teachings of Strachan, it would have been obvious to one having ordinary skill in the art to employ a sled having securing surfaces on the device of Koch. Doing so would improve securing of the work during slicing. With respect to claim 12, see holding plate (15) of Koch.

Claim 13 lacks an inventive step under PCT Article 33(3) as being obvious over Koch et al. (US 5,224,407).

Koch discloses the invention substantially as claimed including a base (2), a rotatable blade (8), a motor, a carriage (5), a support arm including a pivot actuator (Fig. 1). Koch fails to disclose a releasable table having a top surface and a release. However, it would have been an obvious matter of design choice to employ a releasable table with a release since such arrangement is old and well known in the art for the purpose of providing ease cleaning of the table.

Claim 18 lacks an inventive step under PCT Article 33(3) as being obvious over Koch et al. (US 5,224,407) in view of Pratley (US 3,704,736).

Koch discloses the invention substantially as claimed including a base (2), a rotatable blade (8), a motor, a carriage (5), and a support arm including a pivot actuator (Fig. 1). Koch fails to teach an interlock system having a slidable plate and a hinged flapper stop operably connecting an adjustable gauge plate and a releasable table having a top surface and a release. However, it would have been an obvious matter of design choice to employ a releasable table with a release since such arrangement is old and well known in the art for the purpose of providing ease cleaning of the table. Furthermore, Pratley teaches interlock system to prevent removal of a carriage tray (100) except when the gauge plate (65) is at its zero setting flush with a knife (35). Given the teachings of Pratley, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an interlock operably connecting an adjustable gauge plate and a releasable table on the device of Koch. Doing so would assure guarding of the cutting edge from exposing when the table is released from the machine for cleaning.

Claims 1-18 meet the criteria set out in PCT Article 33(4), because it can be made and used in the industry.

----- NEW CITATIONS -----

US 6,164,161 A (YOUNG) 26 DECEMBER 2000, see column 10.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
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BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/11766

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :B26D 7/00; B23D 19/00
US CL :83/42, 77, 174.1, 703, 932

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : Please See Extra Sheet.

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3,938,602 A (SLY et al) 17 February 1976, Figures 1-3.	1-2
X	US 1,945,269 A (FREUDENBERG) 30 January 1934, Figure 1.	3-4
X	US 3,986,304 A (SHIE, III) 19 October 1976, Figures 1-5.	5
----- Y		----- 6-8
Y	US 4,246,821 A (FUSE) 27 January 1981, columns 3-4.	6-8
Y	US 5,224,407 A (KOCH et al) 06 July 1993, Figure 1.	9-15, 18
Y	US 1,972,250 A (STRACHAN et al) 04 September 1934, Figure 1.	9-13

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

07 AUGUST 2000

Date of mailing of the international search report

24 AUG 2000

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
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Technology Center 3700

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/11766

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,666,866 A (HUANG et al) 16 September 1997, Figure 1.	14-15
Y	US 4,813,316 A (JOHNSON et al) 21 March 1989, columns 6-8.	16-17
Y	US 3,704,736 A (PRATLEY) 05 December 1972, columns 3-5.	18
A, P	US 5,970,840 A (YAN et al) 26 October 1999, Figure 1.	1-18
A	US 5,862,730 A (CARTWRIGHT et al) 26 January 1999, Figure 1.	1-18
A	US 5,630,348 A (KUCHLER) 20 May 1997, Figure 1.	1-18
A	US 5,615,591 A (SCHERCH et al) 01 April 1997, Figures 1-2.	1-18
A	US 5,591,072 A (TWEED et al) 07 January 1997, Figures 1-2.	1-18
A	US 5,245,898 A (SOMAL et al) 21 September 1993, Figure 1.	1-18
A	US 5,209,150 A (ARCONADA ARCONADA) 11 May 1993, Figure 2.	1-18
A	US 5,101,704 A (JONES et al) 07 April 1992, Figure 4.	1-18
A	US 4,817,480 A (YOUNG) 04 April 1989, Figure 1.	1-18
A	US 4,685,364 A (SCHEFLOW et al) 11 August 1987, Figure 3.	1-18
A	US 4,397,206 A (CZALA) 09 August 1983, Figure 1.	1-18
A	US 4,345,498 A (BEST) 24 August 1982, Figure 2.	1-18
A	US 4,306,385 A (BURTON) 22 December 1981, Figure 12.	1-18
A	US 4,273,013 A (ARTIN et al) 16 June 1981, Figure 1.	1-18
A	US 3,958,478 A (CAMPER) 25 May 1976, Figures 1-5.	1-18
A	US 3,702,150 A (MULLER et al) 07 November 1972, Figure 1.	1-18
A	US 3,320,990 A (ANECKI) 23 May 1967, Figure 1.	1-18
A	US 2,851,074 A (TALGE et al) 09 September 1958, Figure 1.	1-18
A	US 2,412,962 A (BROOKHART et al) 24 December 1946, Figure 1.	1-18

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/11766

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 1,954,043 A (FRYER) 10 April 1934, Figure 1.	1-18

INTERNATIONAL SEARCH REPORT

International application No.
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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☒ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/11766

B. FIELDS SEARCHED

Minimum documentation searched
Classification System: U.S.

83/42, 77, 174.1, 932, 703, 58, 62, 72, 74, 76.6, 76.7, 76.8, 76.9, 522.19, 707, 713, 714, 717, 718, 719, 729, 730;
451/423, 421, 419, 45, 9

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claim(s) 1-4 are, drawn to a bulk food product slicing machine containing a specific slice thickness indicia.

Group II, claim(s) 5-8 are, drawn to a bulk food product slicing machine containing a specific blade sharpening assembly.

Group III, claim(s) 9-12 are, drawn to a slicing machine containing a specific table and sled.

Group IV, claim(s) 13 is, drawn to a bulk food product slicing machine containing a specific carriage and support arm.

Group V, claim(s) 14-15 are, drawn to a bulk food product slicing machine containing a specific handle.

Group VI, claim(s) 16 is, drawn to an operator adjusted optimum stroke system containing a specific selector, zero position switch, encoder and microprocessor.

Group VII, claim(s) 17 is, drawn to a method of automatic operation of a bulk food product slicing machine.

Group VIII, claim(s) 18 is, drawn to a bulk food product slicing machine containing a specific adjustable gauge plate and interlock system.

The inventions listed as Groups I-VIII do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The apparatus of Group I does not require the special technical features of the apparatus of Group II such as the specific blade sharpening assembly, conversely, the apparatus of Group II does not require the special technical features of Group I such as the specific slice thickness indicia. The apparatus of Group I does not require the special technical features of the apparatus of Group III such as the specific table and sled, conversely, the apparatus of Group III does not require the special technical features of Group I such as the specific slice thickness indicia. The apparatus of Group I does not require the special technical features of the apparatus of Group IV such as the specific carriage and support arm, conversely, the apparatus of Group IV does not require the special technical features of Group I such as the specific slice thickness indicia. The apparatus of Group I does not require the special technical features of the apparatus of Group V such as the specific handle, conversely, the apparatus of Group V does not require the special technical features of Group I such as the specific slice thickness indicia. The apparatus of Group I does not require the special technical features of the apparatus of Group VI such as the specific selector, zero position switch, encoder, microprocessor, conversely, the apparatus of Group VI does not require the special technical features of Group I such as the specific slice thickness indicia. The method of Group VII can be practiced by another different apparatus such as the apparatus not having the specific slice thickness indicia set forth in Group I. The apparatus of Group I does not require the special technical features of the apparatus of Group VIII such as the specific adjustable gauge plate and interlock system, conversely, the apparatus of Group VIII does not require the special technical features of Group I such as the specific slice thickness indicia. The apparatus of Group II does not require the special technical features of the apparatus of Group III such as the specific table and sled, conversely, the apparatus of Group III does not require the special technical features of Group II such as the specific blade sharpening assembly. The apparatus of Group II does not require the special technical features of the apparatus of Group IV such as the specific carriage and support arm, conversely, the apparatus of Group IV does not require the special technical features of Group II such as the specific blade sharpening assembly. The apparatus of Group II does not require the special technical features of the apparatus of Group V such as the specific handle, conversely, the apparatus of Group V does not require the special technical features of Group II such as the specific blade sharpening assembly. The apparatus of Group II does not require the special technical features of the apparatus of Group VI such as the specific selector, zero position switch, encoder, microprocessor, conversely, the apparatus of Group VI does not require the special technical features of Group II such as the specific blade sharpening assembly. The method of Group VII can be practiced by another different apparatus such as the apparatus not having the specific blade sharpening assembly set forth in Group II. The apparatus of Group II does not require the special technical features of the apparatus of Group VIII such as the specific adjustable gauge

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plate and interlock system, conversely, the apparatus of Group VIII does not require the special technical features of Group II such as the specific blade sharpening assembly. The apparatus of Group III does not require the special technical features of the apparatus of Group IV such as the specific carriage and support arm, conversely, the apparatus of Group IV does not require the special technical features of Group III such as the specific table and sled. The apparatus of Group III does not require the special technical features of the apparatus of Group V such as the specific handle, conversely, the apparatus of Group V does not require the special technical features of Group III such as the specific table and sled. The apparatus of Group III does not require the special technical features of the apparatus of Group VI such as the specific selector, zero position switch, encoder, microprocessor, conversely, the apparatus of Group VI does not require the special technical features of Group III such as the specific table and sled. The method of Group VII can be practiced by another different apparatus such as the apparatus not having the specific table and sled set forth in Group III. The apparatus of Group III does not require the special technical features of the apparatus of Group VIII such as the specific adjustable gauge plate and interlock system, conversely, the apparatus of Group VIII does not require the special technical features of Group III such as the specific table and sled. The apparatus of Group IV does not require the special technical features of the apparatus of Group V such as the specific handle, conversely, the apparatus of Group V does not require the special technical features of Group IV such as the specific carriage and support arm. The apparatus of Group IV does not require the special technical features of the apparatus of Group VI such as the specific selector, zero position switch, encoder, microprocessor, conversely, the apparatus of Group VI does not require the special technical features of Group IV such as the specific carriage and support arm. The method of Group VII can be practiced by another different apparatus such as the apparatus not having the specific carriage and support arm set forth in Group IV. The apparatus of Group IV does not require the special technical features of the apparatus of Group VIII such as the specific adjustable gauge plate and interlock system, conversely, the apparatus of Group VIII does not require the special technical features of Group IV such as the specific carriage and support arm. The apparatus of Group V does not require the special technical features of the apparatus of Group VI such as the specific selector, zero position switch, encoder, microprocessor, conversely, the apparatus of Group VI does not require the special technical features of Group V such as the specific handle. The method of Group VII can be practiced by another different apparatus such as the apparatus not having the specific handle set forth in Group V. The apparatus of Group V does not require the special technical features of the apparatus of Group VIII such as the specific adjustable gauge plate and interlock system, conversely, the apparatus of Group VIII does not require the special technical features of Group V such as the specific handle. The apparatus of Group VI does not require the special technical features of the apparatus of Group VIII such as the specific adjustable gauge plate and interlock system, conversely, the apparatus of Group VIII does not require the special technical features of Group VI such as the specific selector, zero position switch, encoder, microprocessor. The method of Group VII can be practiced by another different apparatus such as the apparatus not having the specific selector, zero position switch, encoder, microprocessor set forth in Group VI and adjustable gauge plate and interlock system set forth in Group VIII.